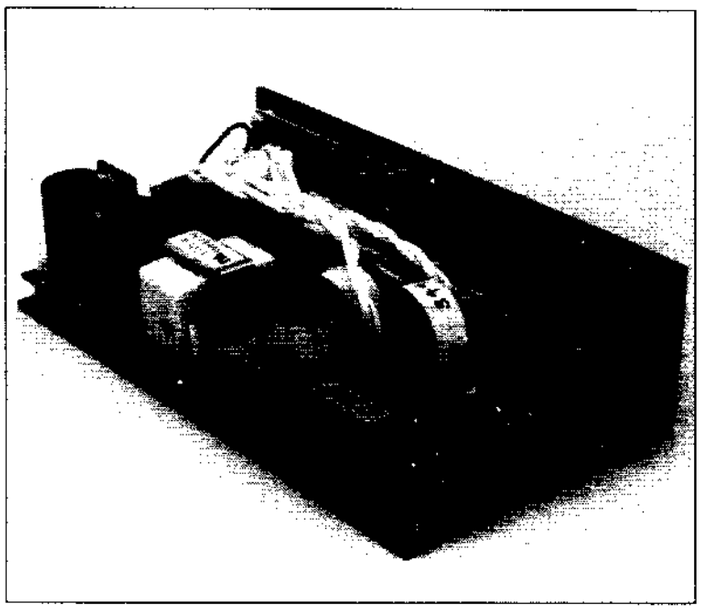
CHEROKEE INTERNATIONAL, INC.

PRODUCT SPECIFICATION

QT14 Series

Multiple Output Switching Power Supplies



125/150 Watts Up to 4 Outputs

Features

- UL Recognized to UL 1012 and 478 †
- CSA Certified to C 22.2 No. 220 M1986 and EB1402 ‡
- TUV Licensed to IEC 380 and 950 and VDE 0806 Class 1 SELV ‡
- Fully compliant with FCC and VDE (Level A) standards for EMI
- Accommodates high-peak disk drive requirements
- 0° – 50°C operating ambient with convection cooling only
- AC input provisions
  - 90-132/180-264 VAC 47-63Hz
  - jumper relocation for VAC range selection
  - input surge current limited
  - brown-out protected
- DC output provisions:
  - complete overload protected
  - overvoltage protected
  - reverse voltage protected
  - low noise outputs

Available Outputs

Standard Output Voltage Combination	Output 1 Volts	Output 1 Rated Amps	Output 1 Peak Amps	Output 2 Volts	Output 2 Rated Amps	Output 2 Peak Amps	Output 3 Volts	Output 3 Rated Amps	Output 3 Peak Amps	Output 4 Volts	Output 4 Rated Amps	Output 4 Peak Amps
A	+5	20.0	25.0	+12	4.0	8.0	12	1.0	1.5	5	0.5	1.0
B	+5	20.0	25.0	+24	3.0	5.0	24	1.0	1.5	12	0.5	1.0
C	+5	20.0	25.0	+15	4.0	8.0	-15	1.0	1.5	12	0.5	1.0

Total (sum) of rated DC output power, maximum.

Convection cooling only	125 Watts
Forced-air cooling (25 CFM)	150 Watts
Peak power (10 sec)	150 Watts

- Other output combinations are also available; consult factory
- All outputs share a common return; consult factory for alternatives.

‡Most models; consult factory

2841 Dow Ave., Tustin, CA 92680-7211 • (714) 544-6665 • FAX (714) 838-4742 • TWX (714) 510-101-0493

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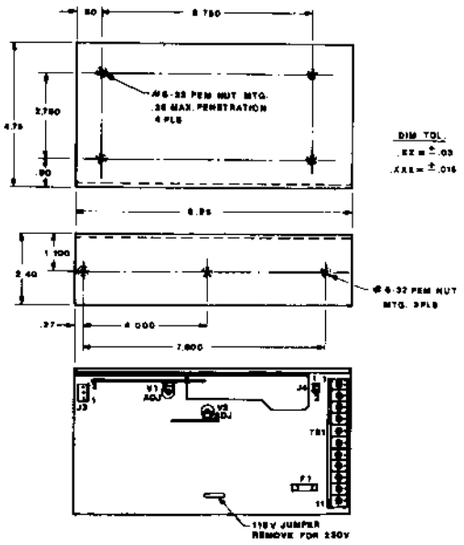
Outline/Mounting/Interface



Terminal Block (TB1)

1 Output 1 (+)	7 Output 3 (–)
2 Output 1 (+)	8 Output 4 (—)
3 Output 1 RTN	9 Safety Ground
4 Output 1 RTN	10 AC Input (ACC)
5 Output 2 (+)	11 AC Input (AC)
6 Output 2, 3 & 4 RTN	

All RTN's commoned

Ordering Information

Options*

QT 14 – A 1 A B D F R S

- Series
- Case/Configuration
- Output Combination (See AVAILABLE OUTPUTS)
- Version (1=Standard)
- Reverse Power Fail (Good)
- Reverse Remote On/Off
- Wire for 230 VAC
- EMI/Safety Cover
- Power Fail (Good)
- Remote On/Off

*List all options selected

All Power Supplies are warranted to be free of defects in materials and workmanship for a period of one year.

Control Connector (J3)
(AMP MTA, 156 ctr)

1 Remote On/Off
2 RTN
3 Power Fail

Control Connector (J4)
(AMP MTA, 100 ctr)

1 Remote sense RTN
2 Remote sense

Specifications

AC Input	Nominal: 115/230 VAC, 47-63Hz Range: 90-132/180-264 VAC; jumper selectable
DC Outputs	Nominal: See AVAILABLE OUTPUTS table Range: Outputs 1 and 2 adjustable ±5%; Outputs 3 and 4 fixed ±5%
Regulation	Line: ±0.25%, all outputs, full AC Input range Load: ±0.25% for Outputs 1 and 2, ±1% for Outputs 3 and 4; for ≥10% loading of Output 1 and zero to full loading of other Outputs
Ripple/Noise	Sum: 1% Pk-Pk, all outputs
Overshoot & Undershoot	Deviation: 2% for 25% load change at 5A/usec Response: 200 usec to 1% deviation, all outputs, turn-on or turn-off
Temperature Coefficient	±0.02% / °C, all outputs
Temperature Range	Operation: 0° to 50°C at rated output power; derate linearly to 50% power at 70°C Storage: -55°C to 85°C
Efficiency	75% typical
Overload Protection	Output 1: current limited by primary current level Outputs 2, 3 and 4: current limited by post regulator characteristics
Overvoltage Protection	Output 1: output level >6.25V ±5% causes shutdown (AC input cycle for restart) Outputs 2, 3 and 4: post regulators have quasi-regulated inputs.
Reverse Voltage Protection	100% of rated current outputs
Hold-up Time	20 ms after loss of nominal AC Input, for specified load regulation
In-rush Current	35A Pk, cold start
Fusing (F-1)	4A/2A, 5MF for 115/230 VAC
Remote Sense	For Output 1 only
Remote On/Off*	Turn on: open circuit or TTL "hi" Turn off: Short circuit or TTL "lo"
Power Fail (Good)*	Power applied: Output "lo" until all outputs are in regulation Power lost: After one cycle ride-through (16 msec minimum) output goes "lo" 4 msec minimum before loss of regulation Output 1 and 2 returns are commoned
Shock/Vibration	Per MIL-STD-810C Vibration: Method 514.2 Procedures X, XI Shock: Method 516.2, Procedures I, III Shock (Transit): Method 516.2, Procedure II
Weight	2 lbs., 12 oz.

Specifications are subject to change without notice.

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